

Notice of Allowability

Application No.

10/076,333

Examiner

Dalei Dong

Applicant(s)

YAMADA ET AL.

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed August 23, 2004.
2. ☒ The allowed claim(s) is/are 4,5,9,10,12-15 and 19-23.
3. ☒ The drawings filed on 19 February 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 4, 5, 9, 10, 12, 13-15, 19-22 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding to claim 4, prior art of record taken alone or in combination fails to teach or suggest a method comprising locally solidifying the coating film formed in the vicinity of a tailing end of the coating solution going along the inner wall of the tube, wherein the local solidification of the coating film comprises drying the coating film by moving a heat source utilizing visible light or an infrared ray and/or a microwave with the movement of the coating solution and irradiating the coating film with the visible light or infrared ray and/or microwave, or fixing the metal compound in the coating film to the inner wall of the tube by moving a ultraviolet ray irradiating device with the movement of the coating solution and irradiating the coating film with the ultraviolet ray in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Regarding to claim 12, prior art of record taken alone or in combination fails to teach or suggest a method comprising locally solidifying the coating film formed in the vicinity of a tailing end of the coating solution going along the inner wall of the tube, wherein the local solidification of the coating film comprises drying the coating film by

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moving a heat source utilizing visible light or an infrared ray and/or a microwave with the movement of the coating solution and irradiating the coating film with the visible light or infrared ray and/or microwave, or fixing the metal compound in the coating film to the inner wall of the tube by moving a ultraviolet ray irradiating device with the movement of the coating solution and irradiating the coating film with the ultraviolet ray in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Regarding to claim 13, prior art of record taken alone or in combination fails to teach or suggest a method comprising locally solidifying the coating film formed in the vicinity of a tailing end of the coating solution going along the inner wall of the tube, wherein the local solidification of the coating film comprises drying the coating film by moving a heat source utilizing visible light or an infrared ray and/or a microwave with the movement of the coating solution and irradiating the coating film with the visible light or infrared ray and/or microwave, or fixing the metal compound in the coating film to the inner wall of the tube by moving a ultraviolet ray irradiating device with the movement of the coating solution and irradiating the coating film with the ultraviolet ray in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Regarding to claim 14, prior art of record taken alone or in combination fails to teach or suggest a method comprising locally solidifying the coating film formed in the vicinity of a tailing end of the coating solution going along the inner wall of the tube, wherein the local solidification of the coating film comprises drying the coating film by moving a heat source utilizing visible light or an infrared ray and/or a microwave with the movement of the coating solution and irradiating the coating film with the visible light or infrared ray and/or microwave, or fixing the metal compound in the coating film to the inner wall of the tube by moving a ultraviolet ray irradiating device with the movement of the coating solution and irradiating the coating film with the ultraviolet ray in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Regarding to claim 22, prior art of record taken alone or in combination fails to teach or suggest a method comprising the local solidification of the coating film comprises drying the coating film by moving a heat source utilizing visible light or an infrared ray and/or a microwave with the movement of the coating solution and irradiating the coating film with the visible light or infrared ray and/or microwave in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Regarding to claim 23, prior art of record taken alone or in combination fails to teach or suggest a method comprising the local solidification of the coating film comprises fixing the metal compound in the coating film to the inner wall of the tube by moving a ultraviolet ray irradiating device with the movement of the coating solution and irradiating the coating film with the ultraviolet ray in order to improve discharge characteristics and reduce the unevenness of the light-emitting operation among many light-emitting points by forming an electron emission film on the inner wall of a gas discharge tube with uniform thickness.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of a method of manufacturing a gas discharge tube.

U.S. Patent No. 6,686,489 to Celinska.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.D.
November 30, 2004



Joseph Williams
Primary Examiner
Art Unit 2879